

Claims

- [c1] A vacuum filled structural frame enclosing materials to be stored or shipped without isolation from the vacuum, supporting an external pliable covering, for maintaining said inside materials and said external pliable covering in spaced apart relationship for the purpose of insulating said inside materials from thermal conduction.
- [c2] The vacuum filled structural frame of Claim 1 wherein said structural frame includes means for minimizing the surface area of physical contact points for thermal conduction to the enclosed materials being stored or shipped through the use of projecting supports.
- [c3] The vacuum filled structural frame of Claim 1 wherein said structural frame includes means for minimizing the surface area of physical contact points for thermal conduction to the enclosed materials being stored or shipped through the use of a grid.
- [c4] The vacuum filled structural frame of Claim 2 wherein said projecting supports are pyramidal in form.
- [c5] The vacuum filled structural frame of Claim 2 wherein said projecting supports are rod like in form.
- [c6] The vacuum filled structural frame of Claim 2 wherein said projecting supports are rectangular in form.
- [c7] The vacuum filled structural frame of Claim 2 wherein said structural frame is capable of supporting the external pliable covering under vacuum pressure completely so that none of the force being imparted by the vacuum pressure on the external pliable covering is transferred through the physical supports of the said vacuum filled structural frame towards the material being stored or shipped in the interior.
- [c8] The vacuum filled structural frame of Claim 7 wherein the force being imparted by the vacuum pressure on the external pliable covering is prevented from being transferred through the physical supports of said structural frame

through the use of periodically spaced structural platforms or ribs.

- [c9] The vacuum filled structural frame of Claim 7 wherein said structural frame is constructed of modular pieces.
- [c10] The modular pieces of Claim 9 wherein said modular pieces fit together through the use of a protruding rim on one side and an extended structural wall on the other side, the exterior circumference of said protruding rim being identical in shape and length, to the interior circumference of said extended structural wall.
- [c11] The modular pieces of Claim 9 wherein the top and bottom piece are designed so that they are indistinguishable from each other through the use of a three stepped rim.
- [c12] The modular pieces of Claim 9 wherein said modular pieces have been constructed so as to snap together using compression fittings through the use of interconnecting indentations and protrusions.
- [c13] A four legged clip formed of two perpendicularly interconnected truncated elliptical or circular frames, that are any geometric shape including circular, rectangular, triangular or elliptical in cross section of the said elliptical or circular frame.
- [c14] The vacuum filled structural frame of Claim 1 wherein said structural frame is comprised of a grid of interconnected pyramidal frames that attach to each other at all four sides of their bases, to the extent that the grid continues.
- [c15] The vacuum filled structural frame of Claim 14 wherein each pyramidal frame is constructed of a sufficiently ductile plastic or composite plastic material and interconnected along each side of each base by a thin section of said ductile plastic in such a way that a natural hinge is created along each side of each interconnected pyramidal base, to the extent that the grid continues.
- [c16] The vacuum filled structural frame of Claim 14 wherein each upright member of each pyramidal frame extends upwards at an angle of 35.26438967 degrees from each corner of a square pyramid base towards the pyramid's top most point, said angle, when viewed from the side, then forming an angle of 45

degrees, allowing the interconnected pyramidal pieces to form 90 degree angles when connected perpendicularly to like pyramidal frames.

[c17] The vacuum filled structural frame of Claim 14 wherein said structural frame is comprised of uniform cut to fit sheets.